

sand bags in an attempt to hold the island in place. Another option being considered is to build a 17-mile-long causeway in the sound behind Oregon Inlet to Rodanthe, bypassing the rapidly eroding Pea Island barrier segment, and allowing the Pea Island Wildlife Refuge to revert to a natural state without needing continued beach nourishment (Riggs et al., 2008). From a long-term financial, management, and scientific perspective, this latter option is more viable but it conflicts strongly with local and shorter-term interests.

Hatteras Inlet

Hatteras Inlet (Fig. 11) opened during the same hurricane that opened Oregon Inlet in September of 1846. During the Civil War, this inlet was used extensively since it was more navigable than Ocracoke Inlet (Stick, 1958). In fact, it was used by the Federal fleet that captured two Confederate forts near Hatteras Village in 1861, and again in 1862 when Roanoke Island was attacked. Today, Hatteras Inlet is used only by small craft as the inlet shoals and channels are subject to continual change. Transportation between Hatteras Island and Ocracoke Island is maintained via the state-run ferry system.

Ocracoke Inlet

Ocracoke Inlet (Fig. 12) occurs on all of the 16th and 17th century maps of coastal NC. New data indicate that Ocracoke Inlet is located within a former river valley (Pamlico Creek) that drained the Pamlico Sound basin during the Last Glacial Maximum approximately 20,000 years ago (Mallinson et al., in review) (Fig. 13). It is likely that the occurrence of this river valley beneath the inlet accounts for its stability and longevity.



Figure 10. An oblique aerial photograph of Oregon Inlet and the Oregon Inlet Bridge. Courtesy of the U.S. Army Corps of Engineers, Field Research Facility in Duck, NC.

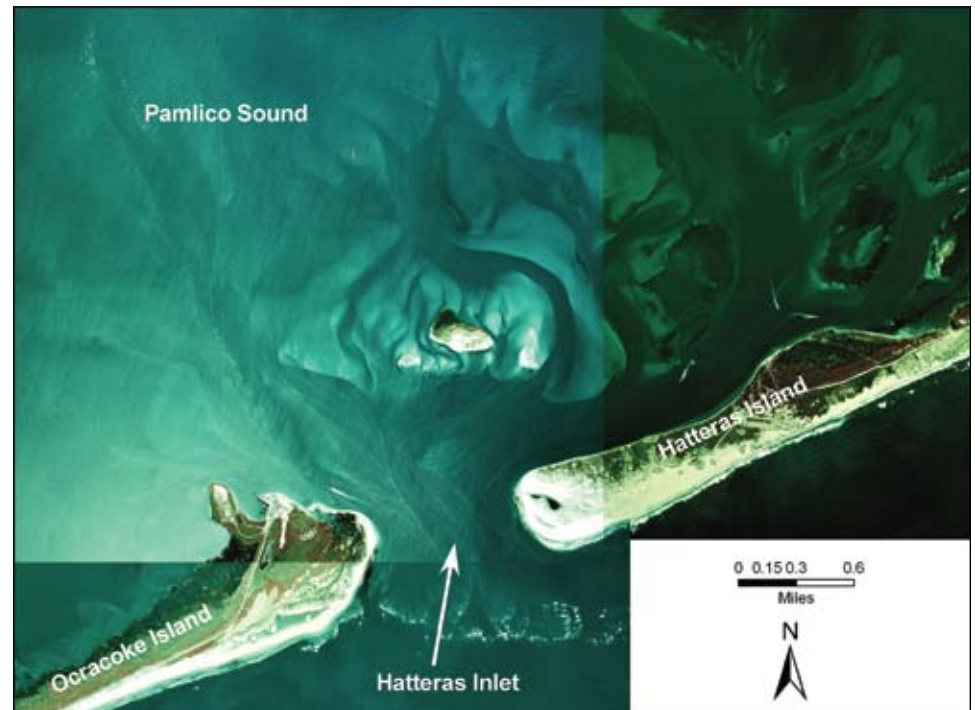


Figure 11. Figure showing the 1998 aerial photograph of Hatteras Inlet (NC State Database).

Ocracoke Inlet has offered a navigable route for private and commercial vessels for centuries. Prior to the opening of Oregon Inlet in 1846, ships traveling to ports on the mainland (Bath, Edenton, Washington, New Bern, etc.) only had the option of using Ocracoke Inlet or Hatteras Inlet. In 1715 Ocracoke Inlet was designated an official port of entry for access to the mainland communities, and required official